OIPE JUN 24 2004 PATENT & TRADEMARK OFFICE

Fig. 1

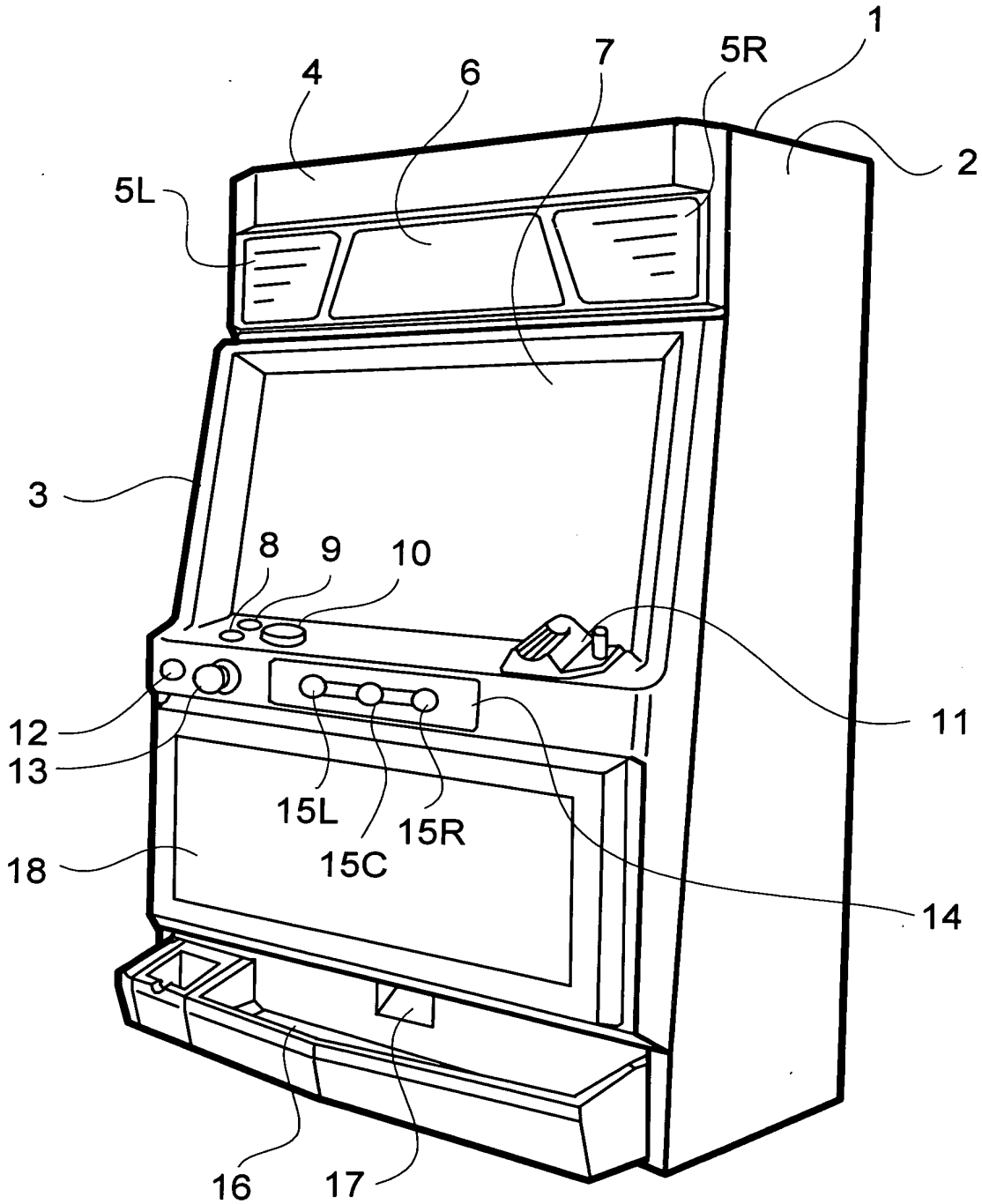


Fig. 2

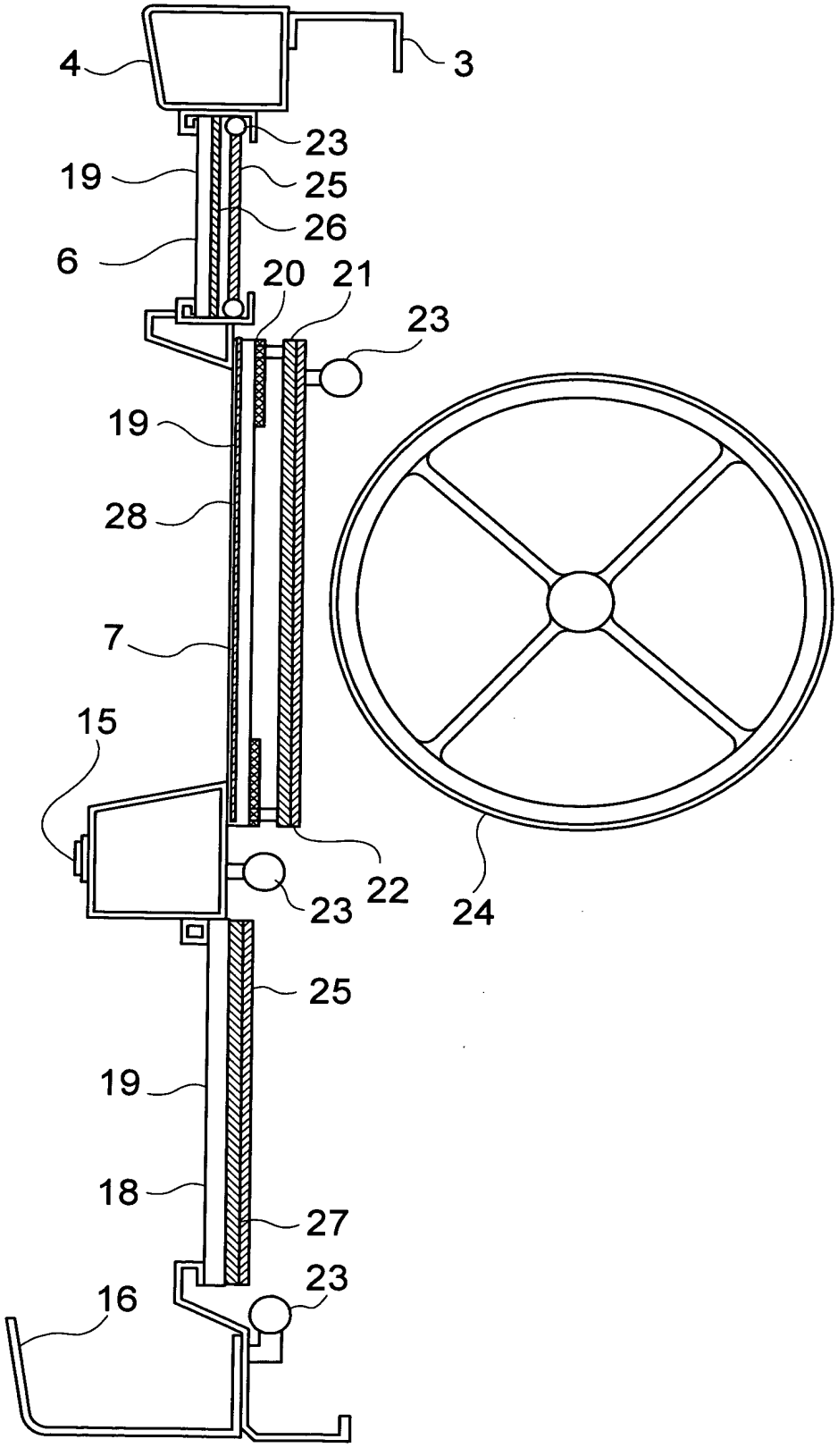


Fig. 3

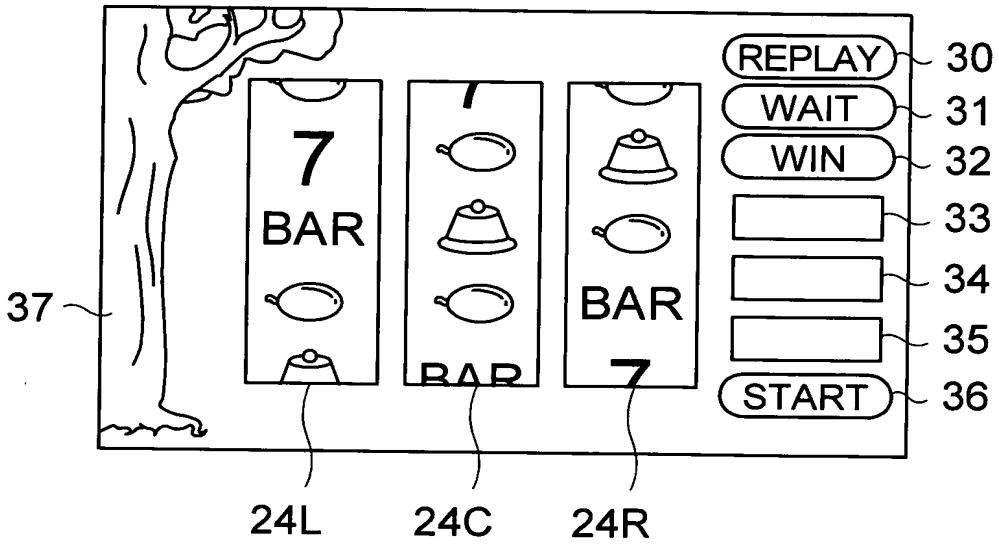

REPLAY
30
WAIT
31
WIN
32
33
34
35
START
36
37
7
BAR
BAR
7
24L
24C
24R

Fig. 4

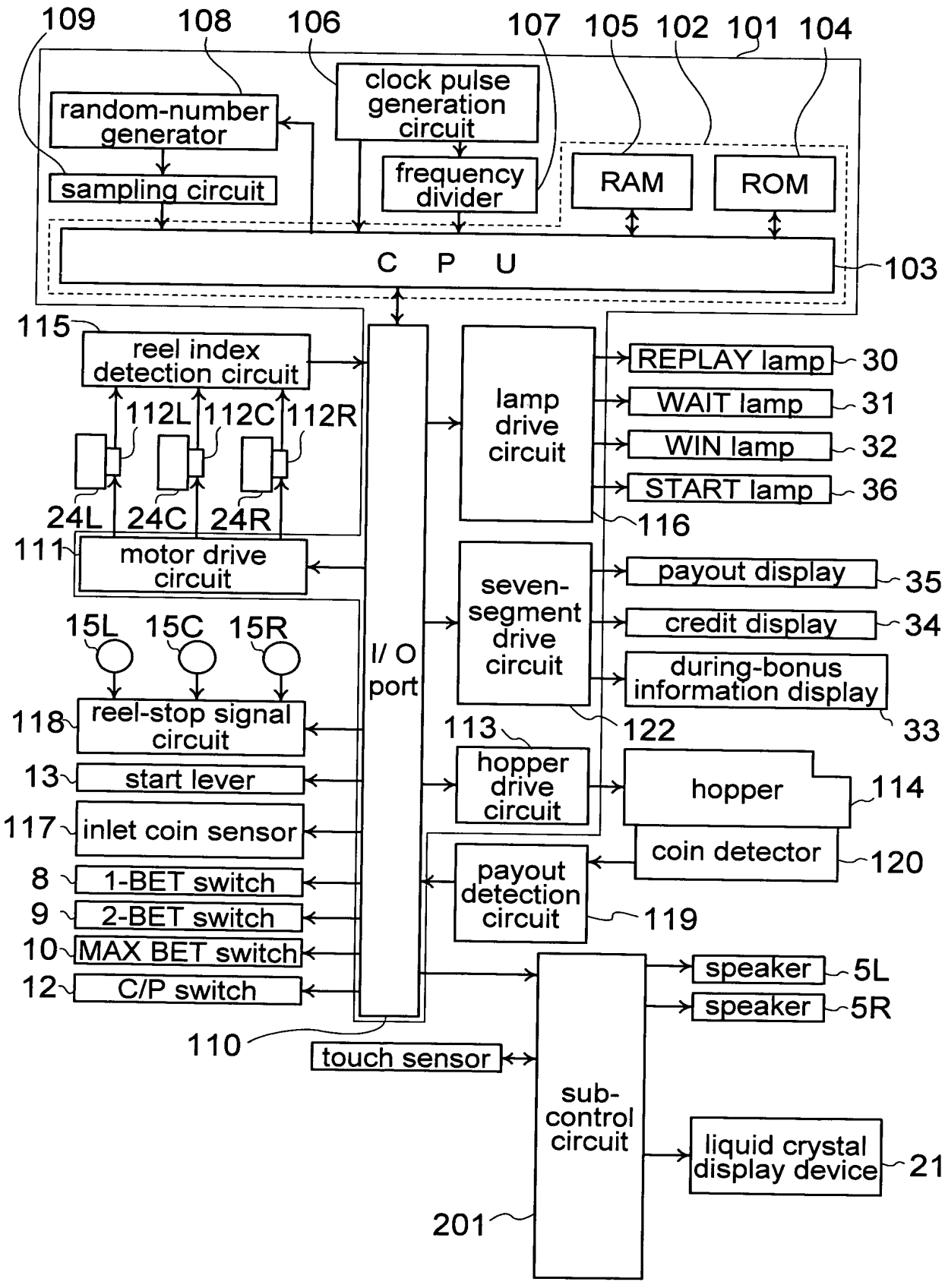

109
108
106
107
105
102
101
104
random-number generator
clock pulse generation circuit
sampling circuit
frequency divider
RAM
ROM
C P U
103
115
reel index detection circuit
112L
112C
112R
24L
24C
24R
111
motor drive circuit
15L
15C
15R
118
reel-stop signal circuit
13
start lever
117
inlet coin sensor
8
1-BET switch
9
2-BET switch
10
MAX BET switch
12
C/P switch
110
I/ O port
lamp drive circuit
REPLAY lamp
30
WAIT lamp
31
WIN lamp
32
START lamp
36
116
seven-segment drive circuit
payout display
35
credit display
34
during-bonus information display
33
122
113
hopper drive circuit
hopper
114
coin detector
120
payout detection circuit
119
speaker
5L
speaker
5R
touch sensor
sub-control circuit
liquid crystal display device
21
201

Fig. 5

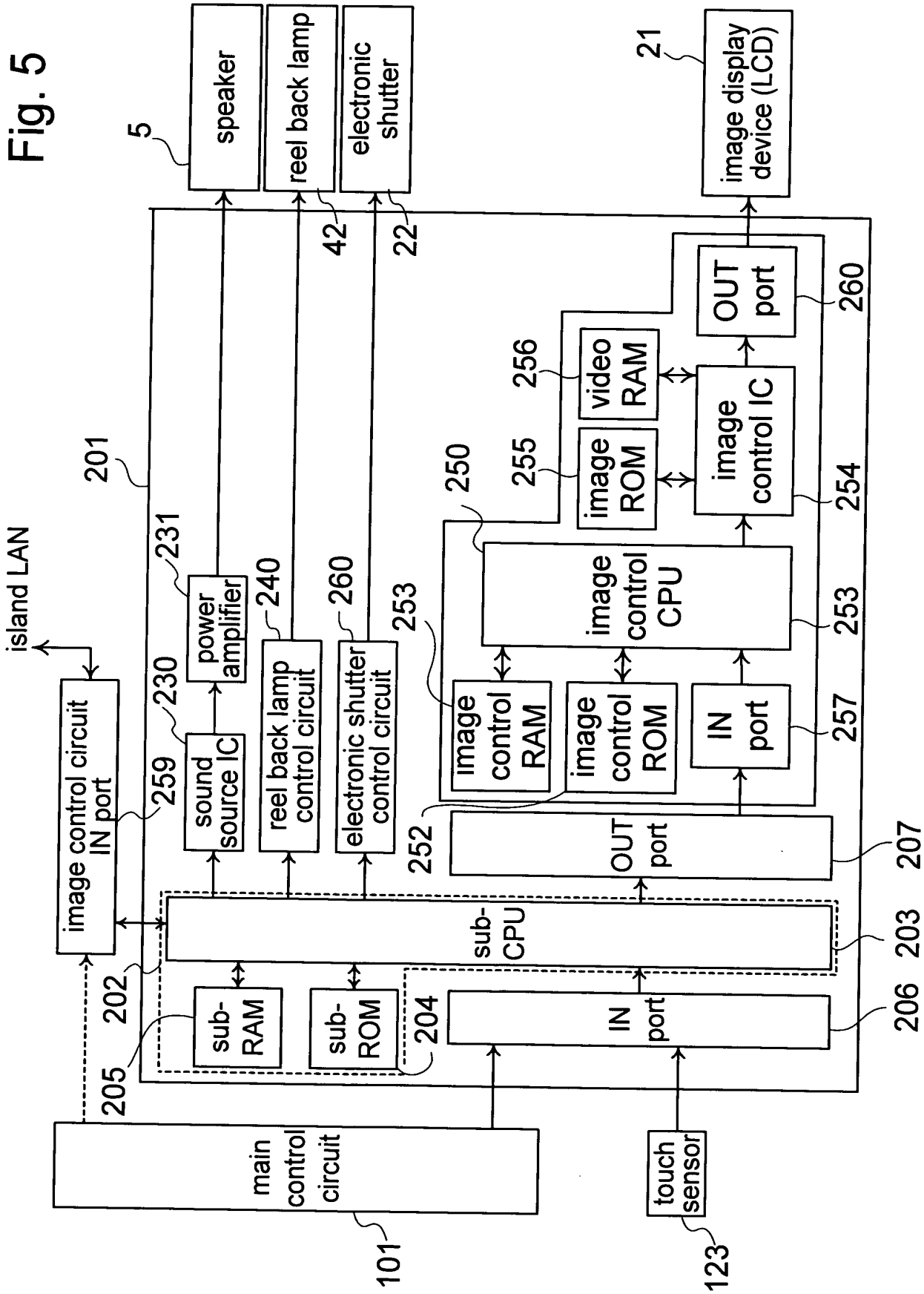

speaker
reel back lamp
electronic shutter
image display device (LCD)
5
21
42
22
201
231
240
260
253
250
255
256
260
power amplifier
reel back lamp control circuit
electronic shutter control circuit
image ROM
video RAM
OUT port
image control CPU
image control IC
254
253
island LAN
230
259
sound source IC
image control circuit IN port
image control RAM
image control ROM
IN port
257
252
OUT port
207
sub-CPU
203
202
205
sub-RAM
sub-ROM
204
IN port
206
main control circuit
touch sensor
101
123

Fig. 6 A

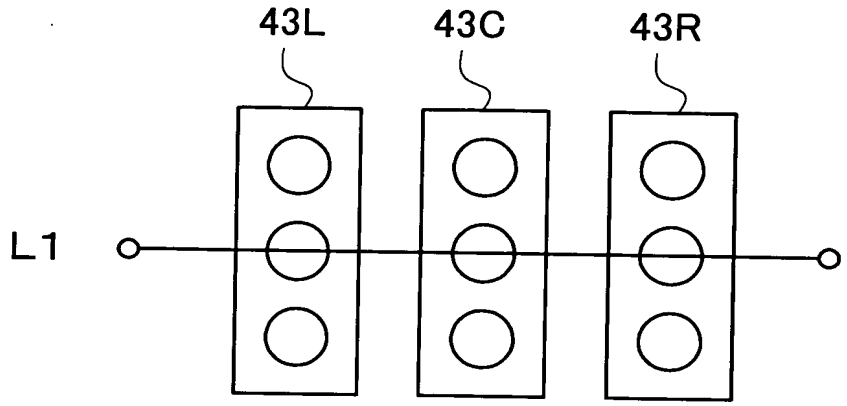


Fig. 6 B

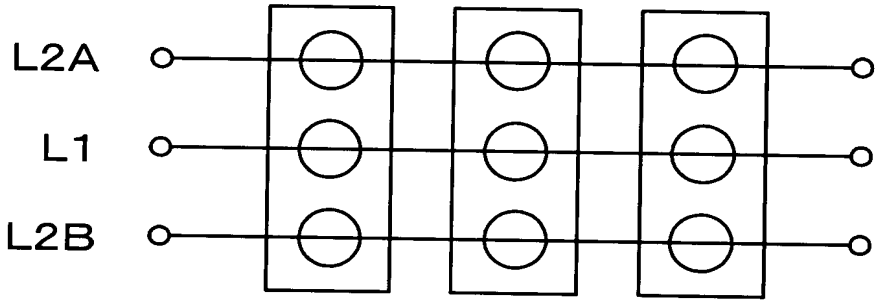


Fig. 6 C

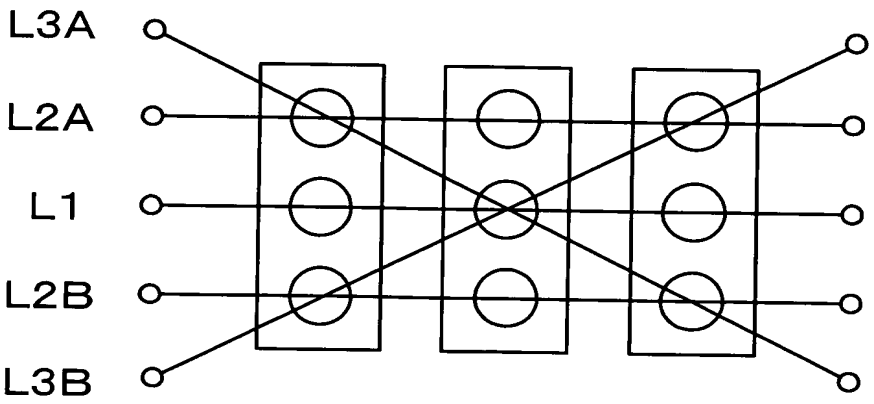


Fig. 7

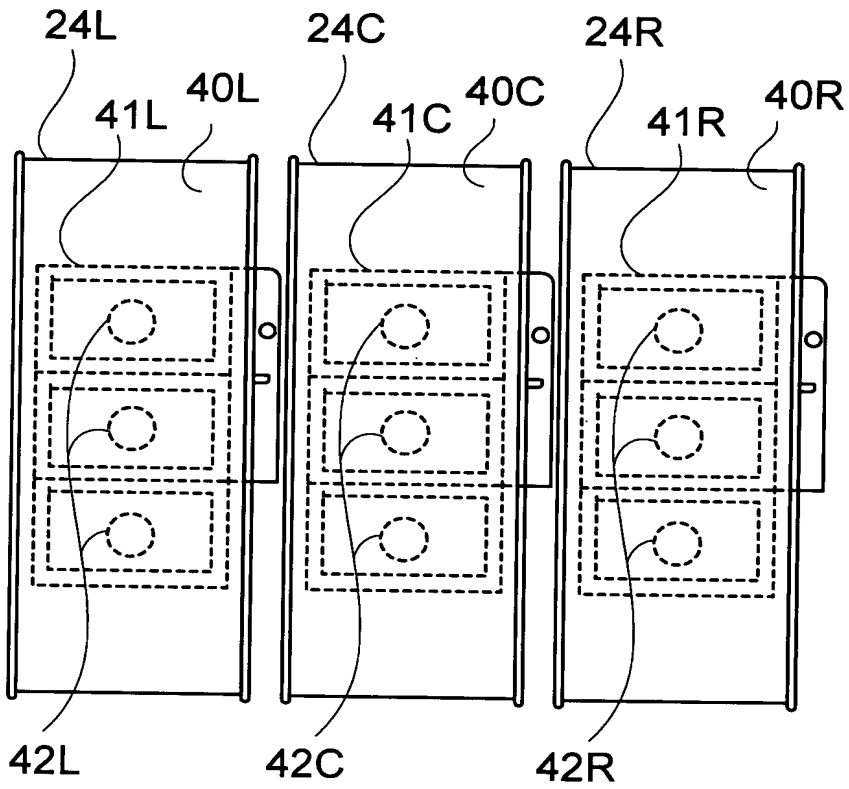


Fig. 8 A

	left reel
21	red 7
20	cherry
19	bell
18	replay
17	red 7
16	BAR
15	replay
14	bell
13	sword 7
12	cherry
11	bell
10	replay
9	BAR
8	sword 7
7	bell
6	replay
5	sword 7
4	watermelon
3	bell
2	replay
1	sword 7

40L'

Fig. 8 B

	center reel
21	red 7
20	replay
19	watermelon
18	sword 7
17	bell
16	sword 7
15	replay
14	cherry
13	bell
12	sword 7
11	replay
10	watermelon
9	BAR
8	bell
7	red 7
6	replay
5	bell
4	replay
3	BAR
2	sword 7
1	bell

40C'

Fig. 8 C

	right reel
21	cherry
20	bell
19	replay
18	sword 7
17	watermelon
16	bell
15	replay
14	sword 7
13	BAR
12	bell
11	replay
10	sword 7
9	watermelon
8	replay
7	bell
6	replay
5	BAR
4	red 7
3	bell
2	replay
1	sword 7

40R'

symbol combination	under general game (bonus-internal-winning)	general game under BB	JAC (combination) game
red 7-red 7-red 7	15 coins + BB		
BAR—BAR—BAR	15 coins + RB		
sword 7-sword 7-sword 7	15 coins + SB		
watermelon-watermelon-watermelon	3 coins	15 coins	
bell-bell-bell	6 coins	7 coins	
cherry-ANY-ANY	1 coin	1 coin	
replay-replay-replay	replay	1 coin + RB	15 coins

Fig. 9

Fig. 10

table No.	left center right	left right center	center left right	center right left	right left center	right center left
1	○	×	×	×	×	×
2	×	○	×	×	×	×
3	×	×	○	×	×	×
4	×	×	×	○	×	×
5	×	×	×	×	○	×
6	×	×	×	×	×	○

○··· prize won
×··· prize not won

＊ correct observation push timing not required

Fig. 11

winning combination	random-number range	winning probability
SB	0～2298	2299／16384
bell	2299～11024	8726／16384
watermelon	11025～11165	141／16384
cherry	11166～11385	220／16384
replay	11386～13630	2245／16384
BB	13631～13668	38／16384
RB	13669～13696	27／16384
blank	13697～16383	2686／16384

random-number range : 0～16383

Fig. 12 A

start command

1	internal-winning combination
2	SB
	bell
	watermelon
	cherry
	replay
	BB
	RB
	blank

3	game situation
4	in general game
	under RB internal winning lasting
	under BB internal winning lasting
	in RB action
	in BB action

5	selection of stop table
6	table No. 1
	table No. 2
	table No. 3
	table No. 4
	table No. 5
	table No. 6

Fig. 12 B

reel stop command

1	stop order
2	first stop
	second stop
	third stop

3	stop reel
4	left reel
	center reel
	right reel

5	stop position
6	0～21

Fig. 12 C

one-game end command

1	prize winning kind
2	SB
	bell
	watermelon
	cherry
	replay
	BB
	RB
	blank

3	bonus game situation
4	general game 1 in BB
	general game 2 in BB
	general game 3 in BB
	RB game 1
	RB game 2
	RB game 3
	RB end
	BB end

Fig. 13 A

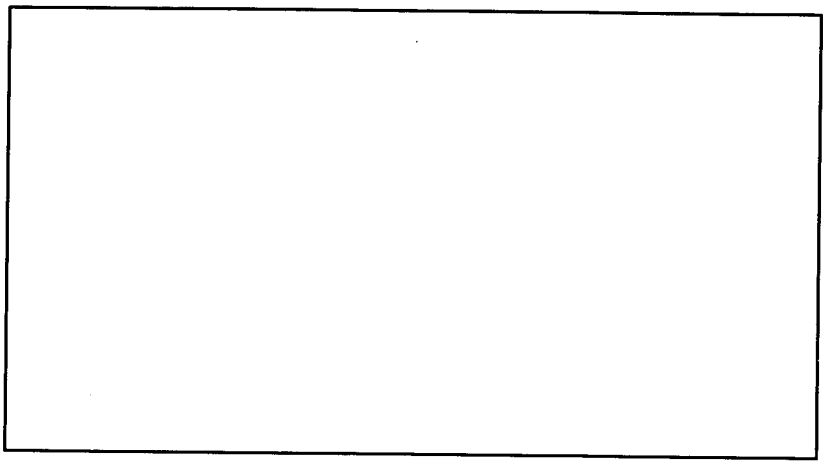


Fig. 13 B

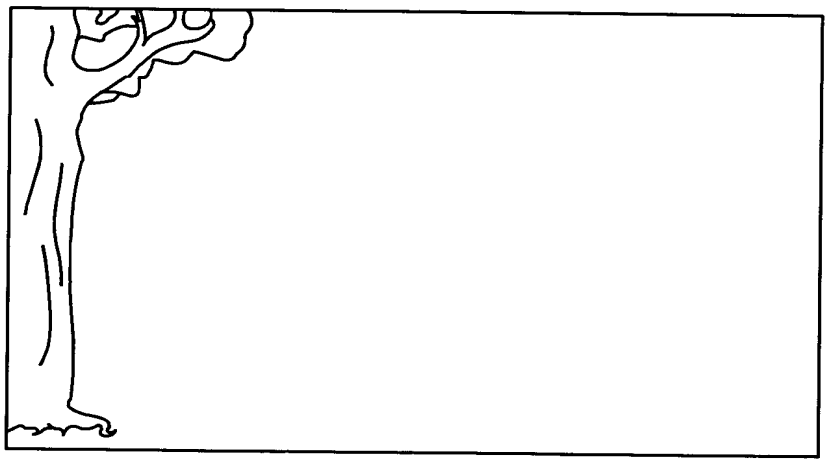


Fig. 13 C

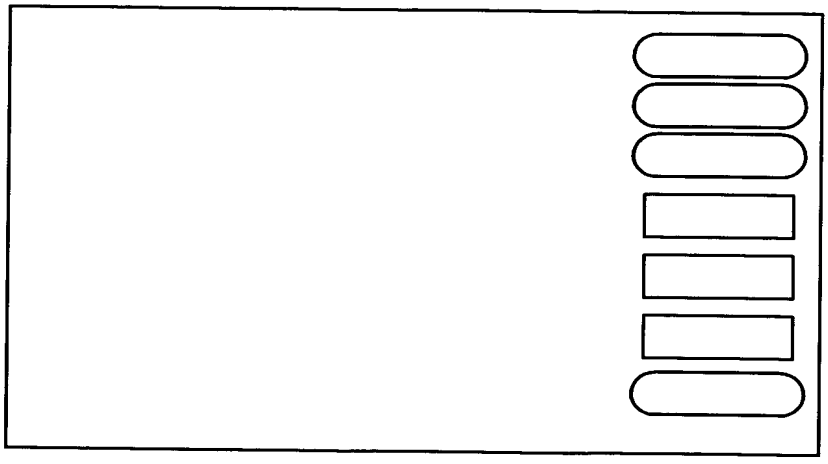


Fig. 14

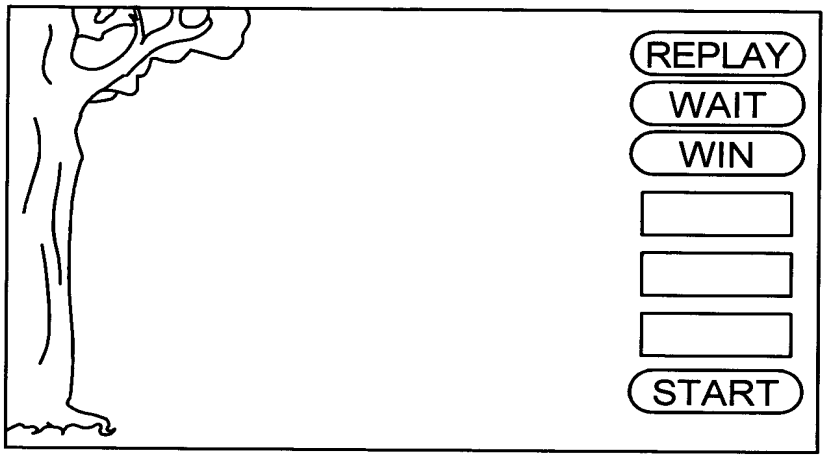


Fig. 15 A

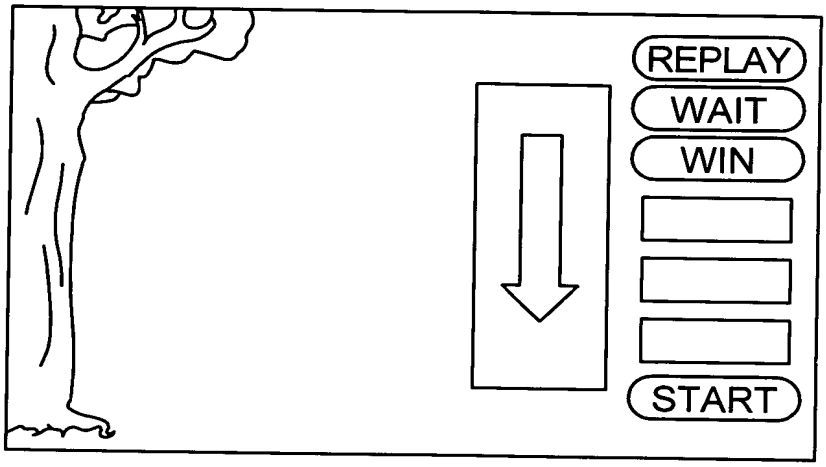


Fig. 15 B

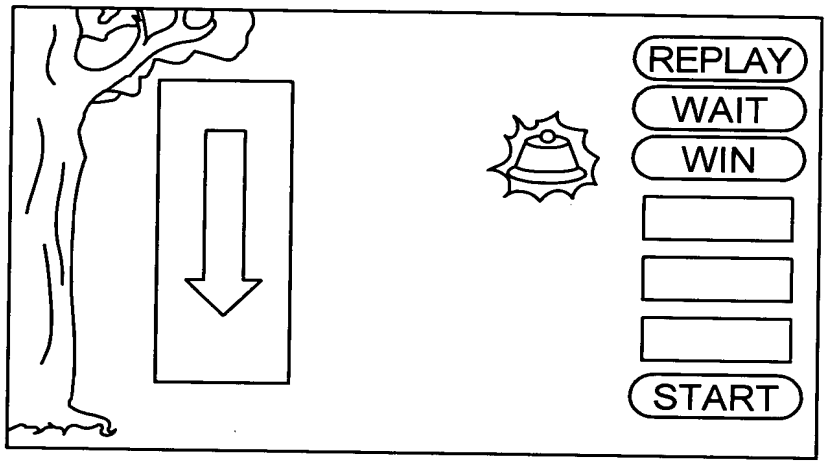


Fig. 15 C

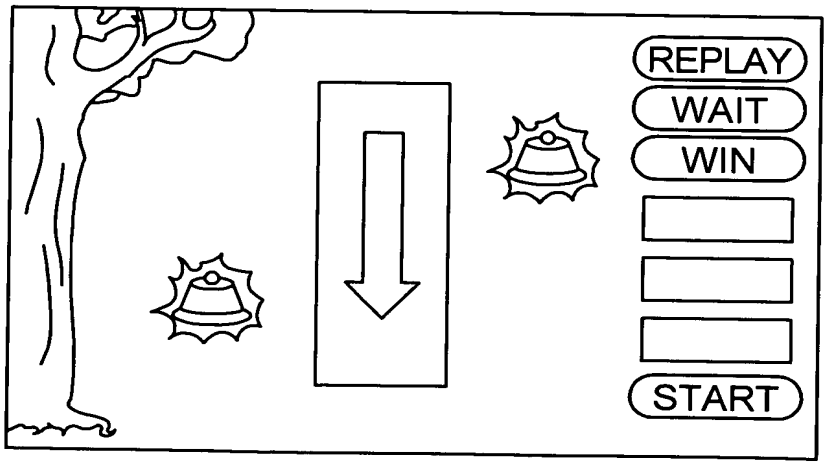


Fig. 16 A

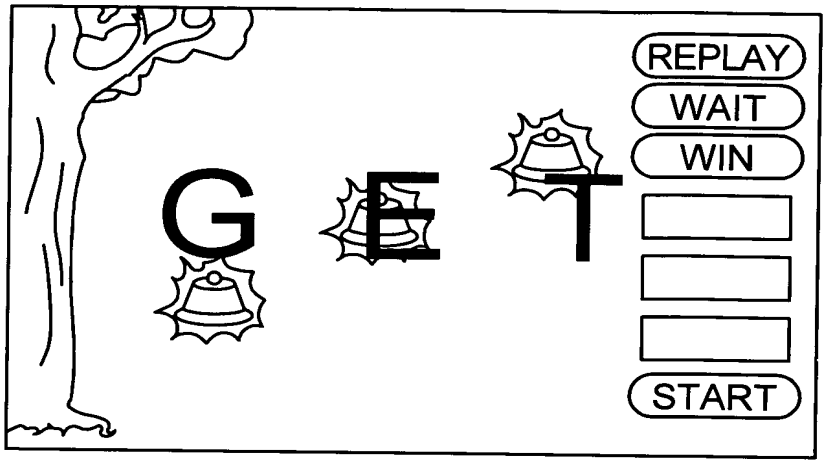


Fig. 16 B

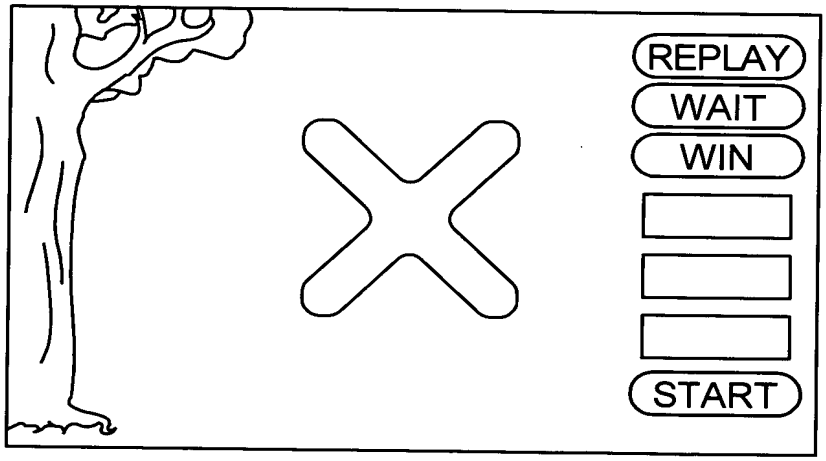


Fig. 16 C

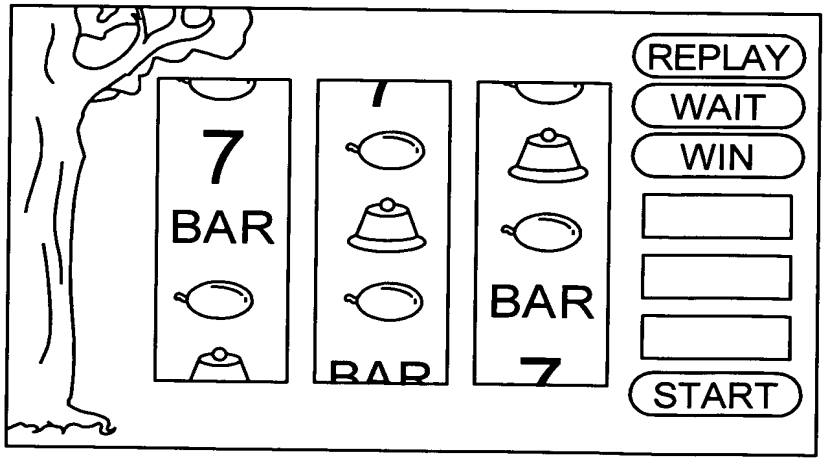


Fig. 17 A

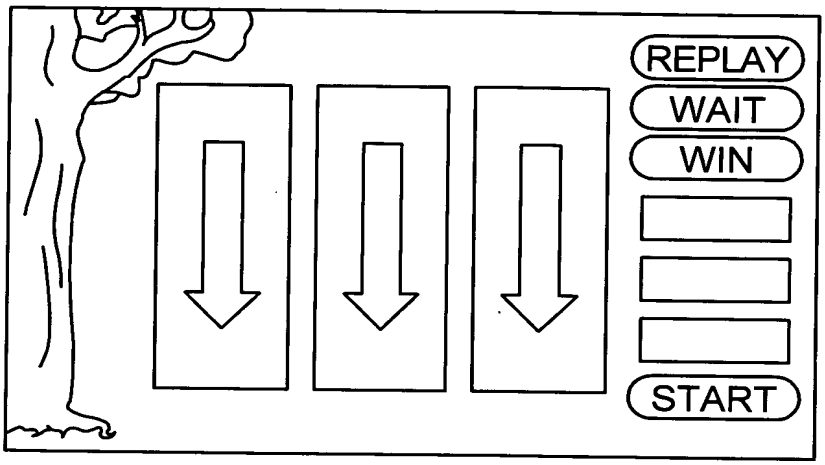


Fig. 17 B

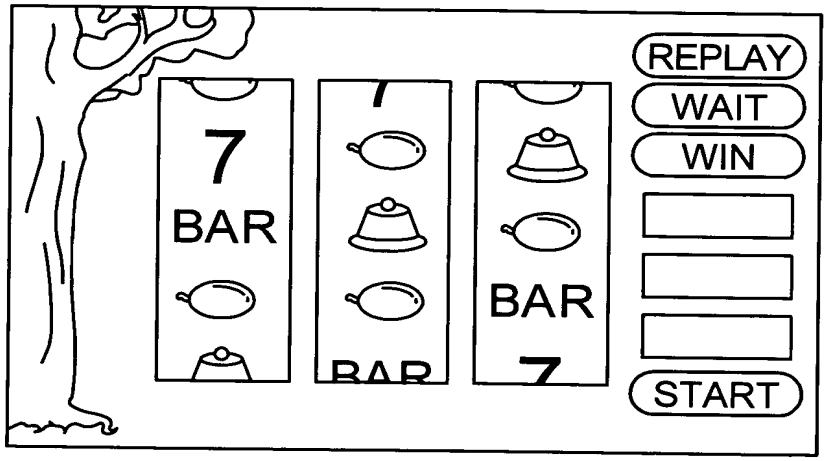


Fig. 17 C

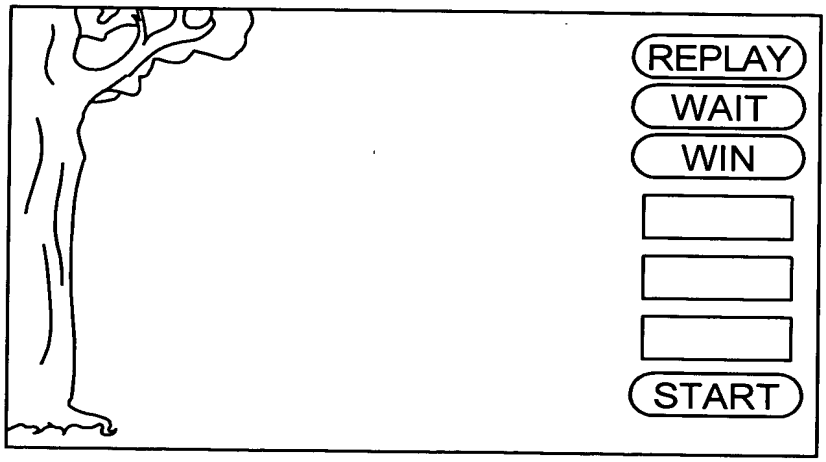


Fig. 18A

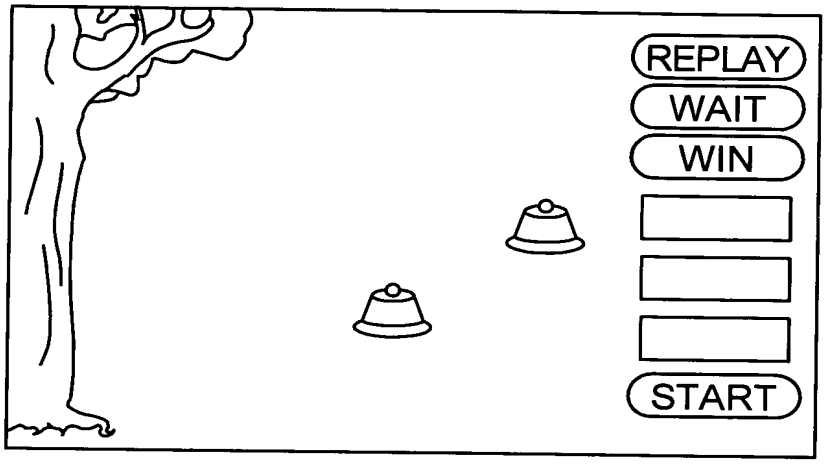


Fig. 18 B

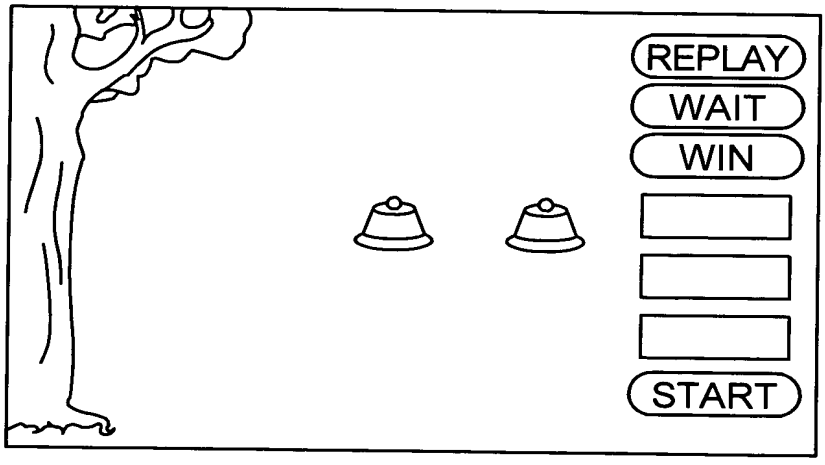


Fig. 19 A

winning kind	winning kind			
	BB	RB	watermelon	SB
winning	0～45	0～56	0～20	0～11
blank	46～127	57～127	24～127	12～127

random-number range: 0～127

Fig. 19 B

bell display number	winning kind			
	BB	RB	watermelon	SB
all	0～84	0～96	0～20	0～8
appearance number-1	85～121	97～127	21～52	9～21
appearance number-2	122～127	—	53～90	22～38
appearance number-3	—	—	91～116	39～95
appearance number-4	—	—	117～123	96～120
appearance number-5	—	—	124～127	121～127

random-number range: 0～127

Fig. 20

established flag	BR continuation frequency			
	10 games	50 games	100 games	blank
watermelon	0～10	11～13	14～15	16～127
two cherries	0～6	7～10	—	11～127
blank	0～14	—	15～24	25～127

random-number range: 0～127

Fig. 21

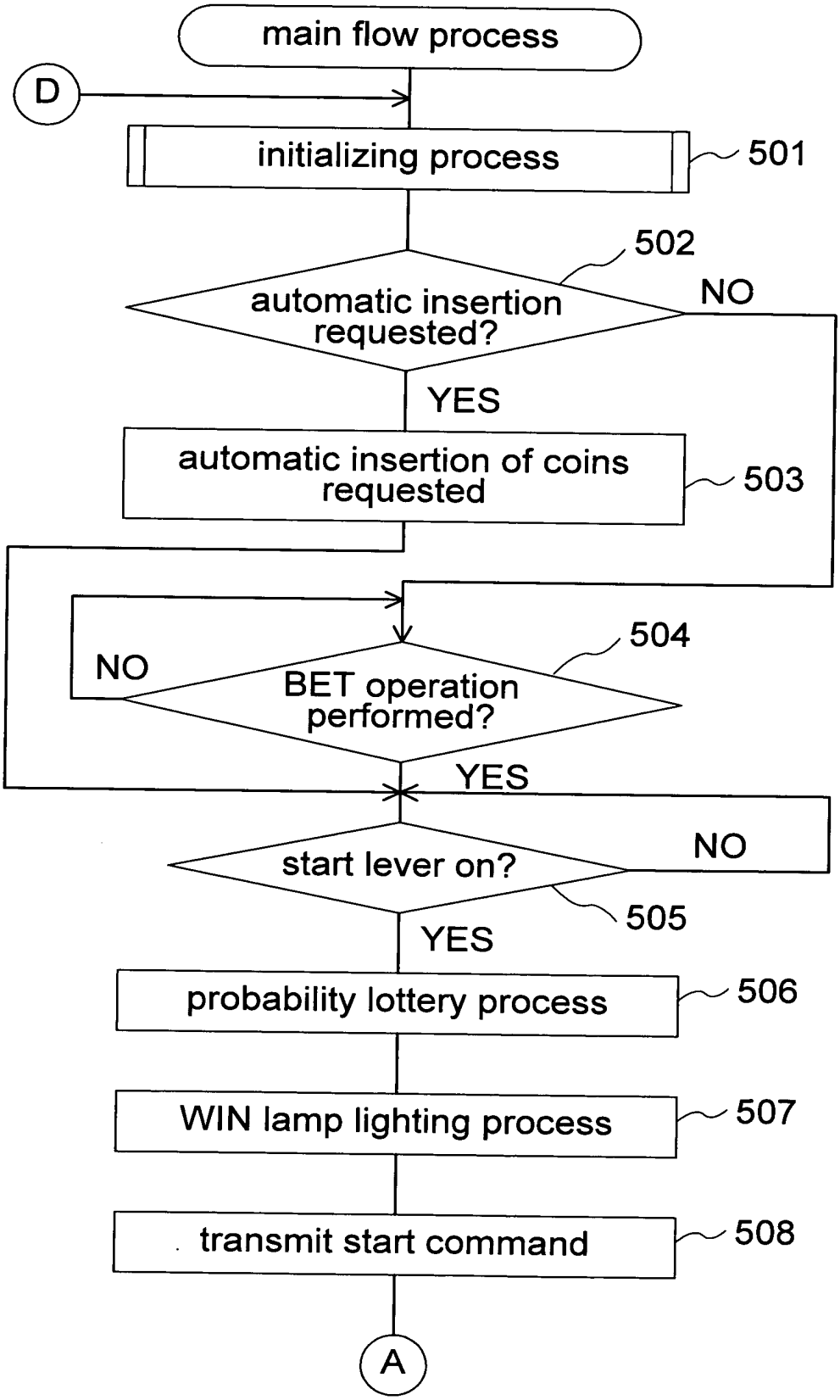

main flow process
D
initializing process
501
502
automatic insertion requested?
NO
YES
automatic insertion of coins requested
503
504
NO
BET operation performed?
YES
start lever on?
NO
505
YES
probability lottery process
506
WIN lamp lighting process
507
transmit start command
508
A

Fig. 22

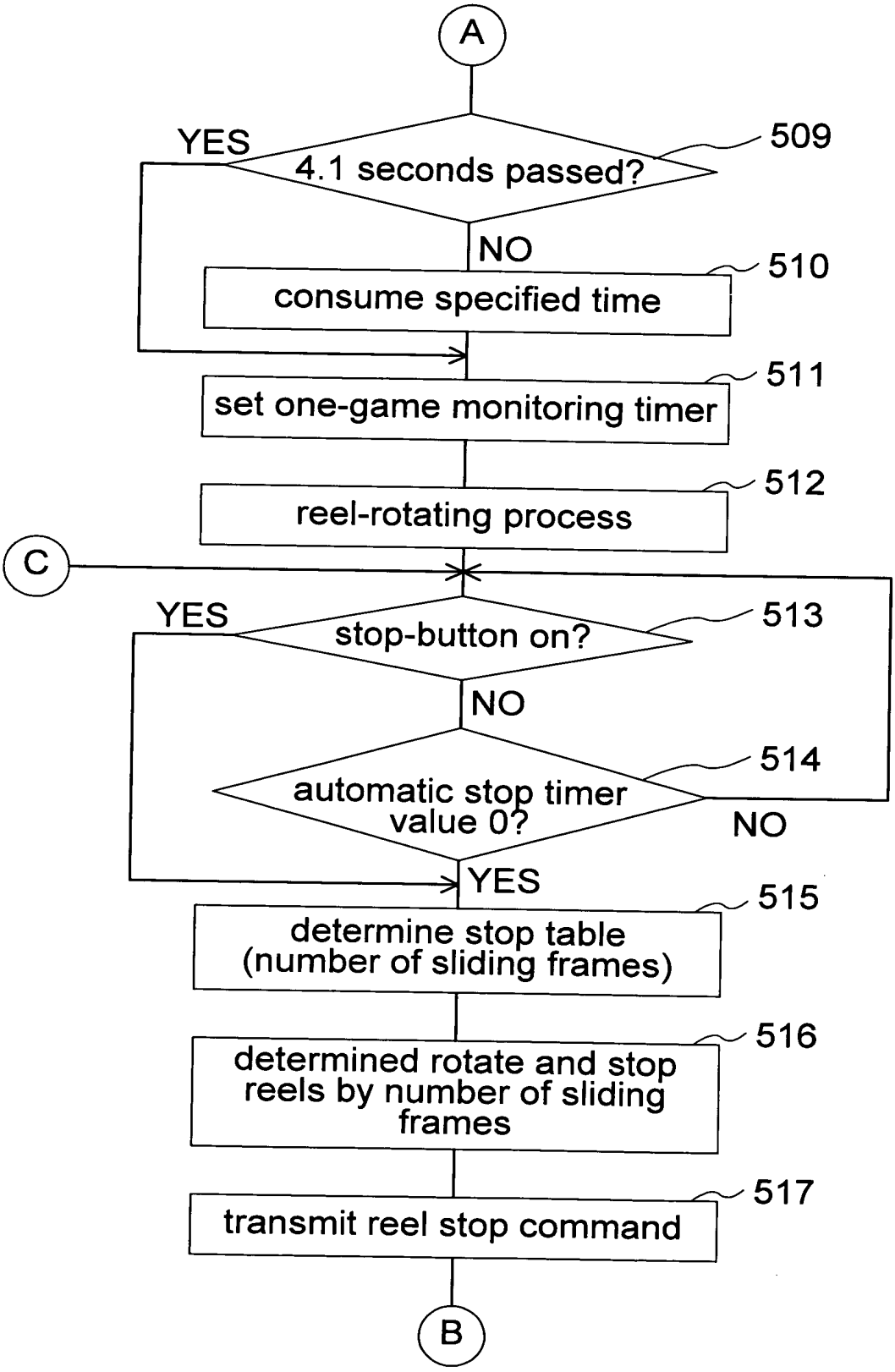

A
YES
4.1 seconds passed?
509
NO
consume specified time
510
set one-game monitoring timer
511
reel-rotating process
512
C
YES
stop-button on?
513
NO
automatic stop timer value 0?
514
NO
YES
determine stop table (number of sliding frames)
515
determined rotate and stop reels by number of sliding frames
516
transmit reel stop command
517
B

Fig. 23

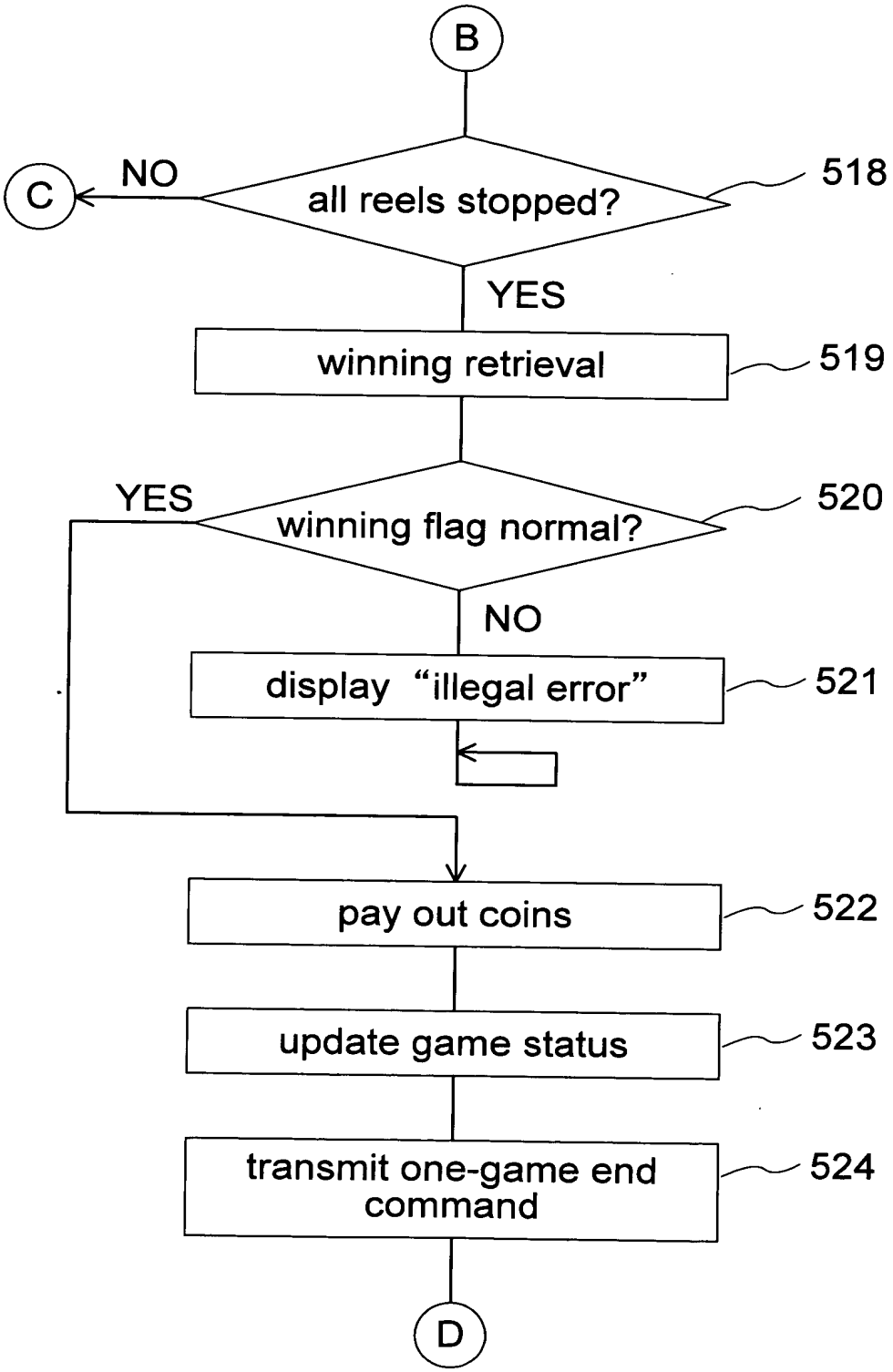

B
C
NO
all reels stopped?
518
YES
winning retrieval
519
YES
winning flag normal?
520
NO
display "illegal error"
521
pay out coins
522
update game status
523
transmit one-game end command
524
D

Fig. 24

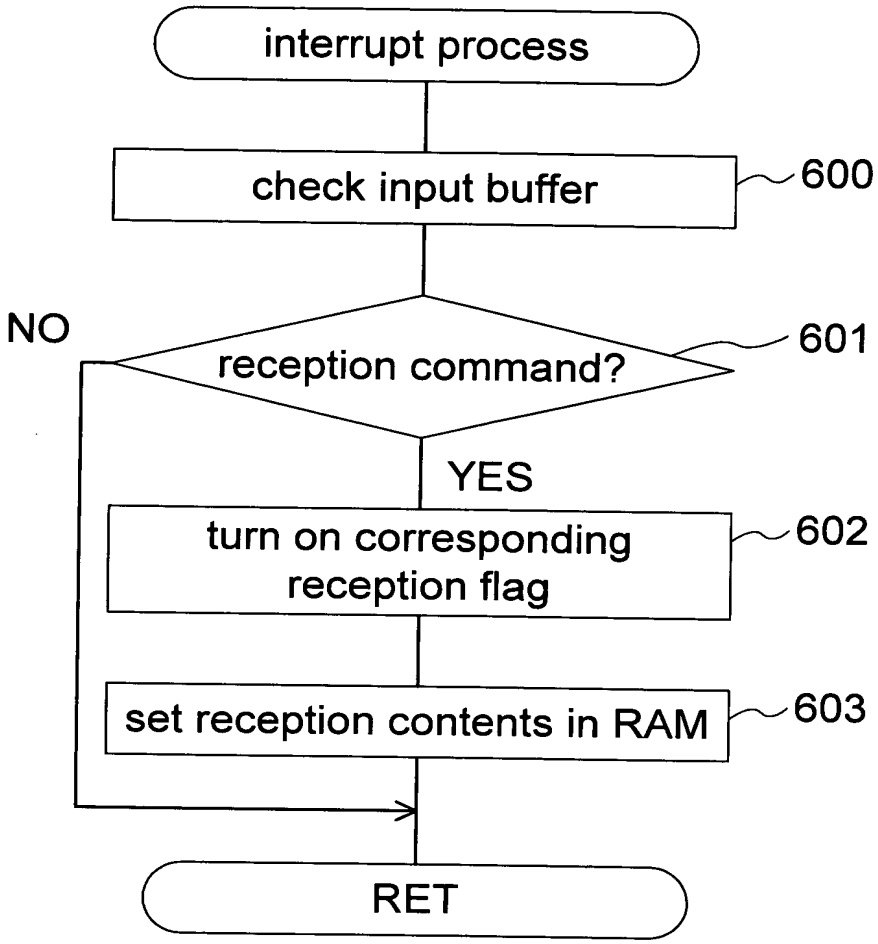

interrupt process
check input buffer
600
NO
reception command?
601
YES
turn on corresponding reception flag
602
set reception contents in RAM
603
RET

Fig. 25

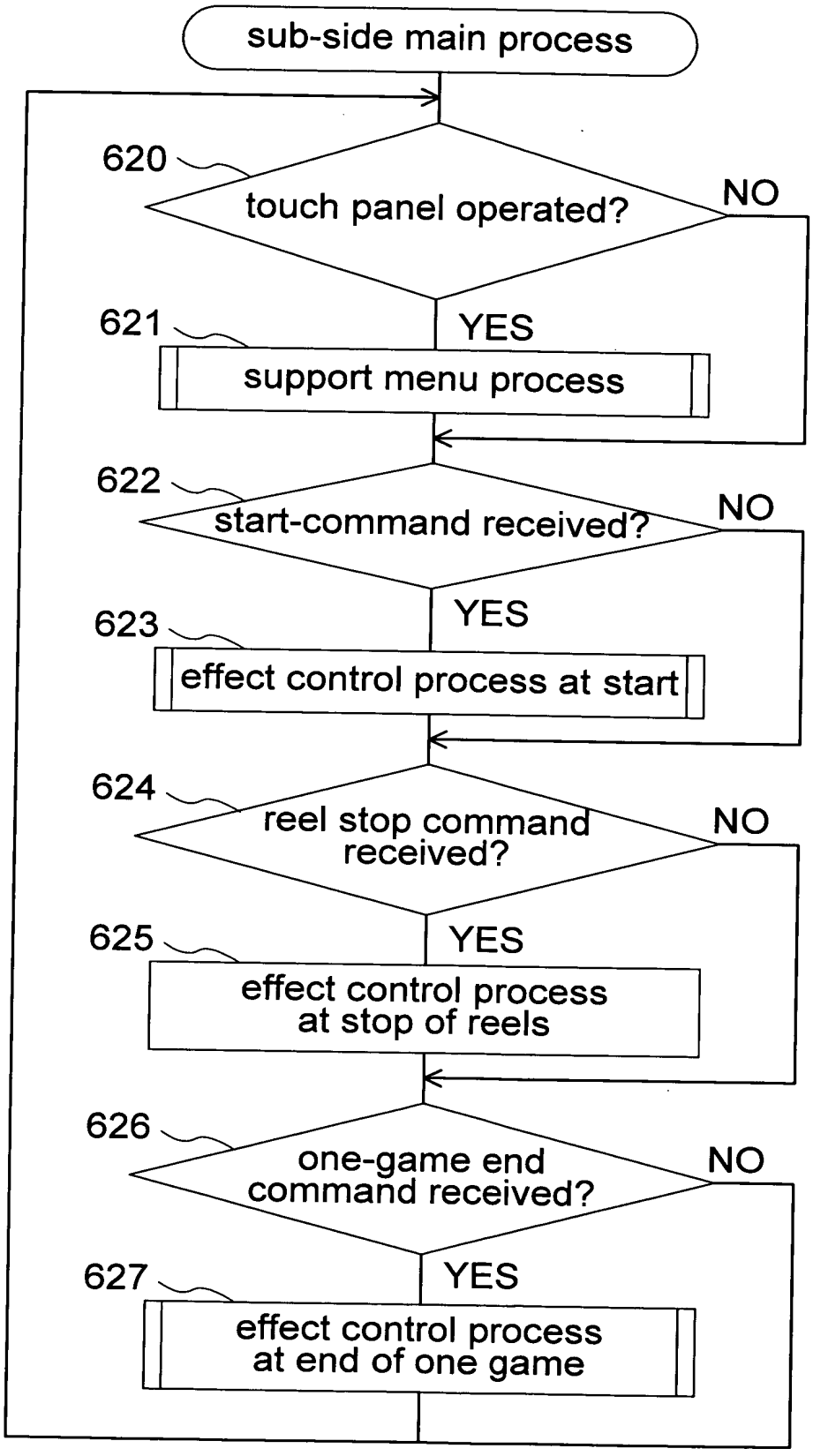

sub-side main process
620
touch panel operated?
NO
YES
621
support menu process
622
start-command received?
NO
YES
623
effect control process at start
624
reel stop command received?
NO
YES
625
effect control process at stop of reels
626
one-game end command received?
NO
YES
627
effect control process at end of one game

Fig. 26

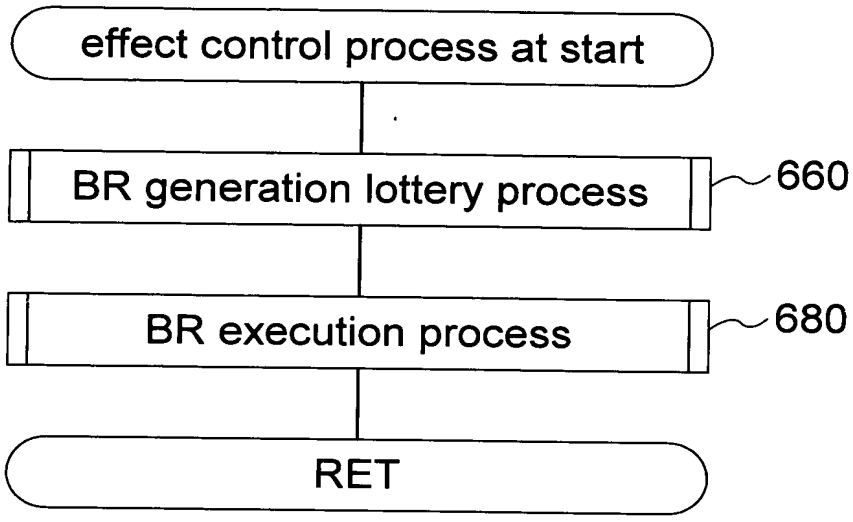

effect control process at start
BR generation lottery process
660
BR execution process
680
RET

Fig. 27

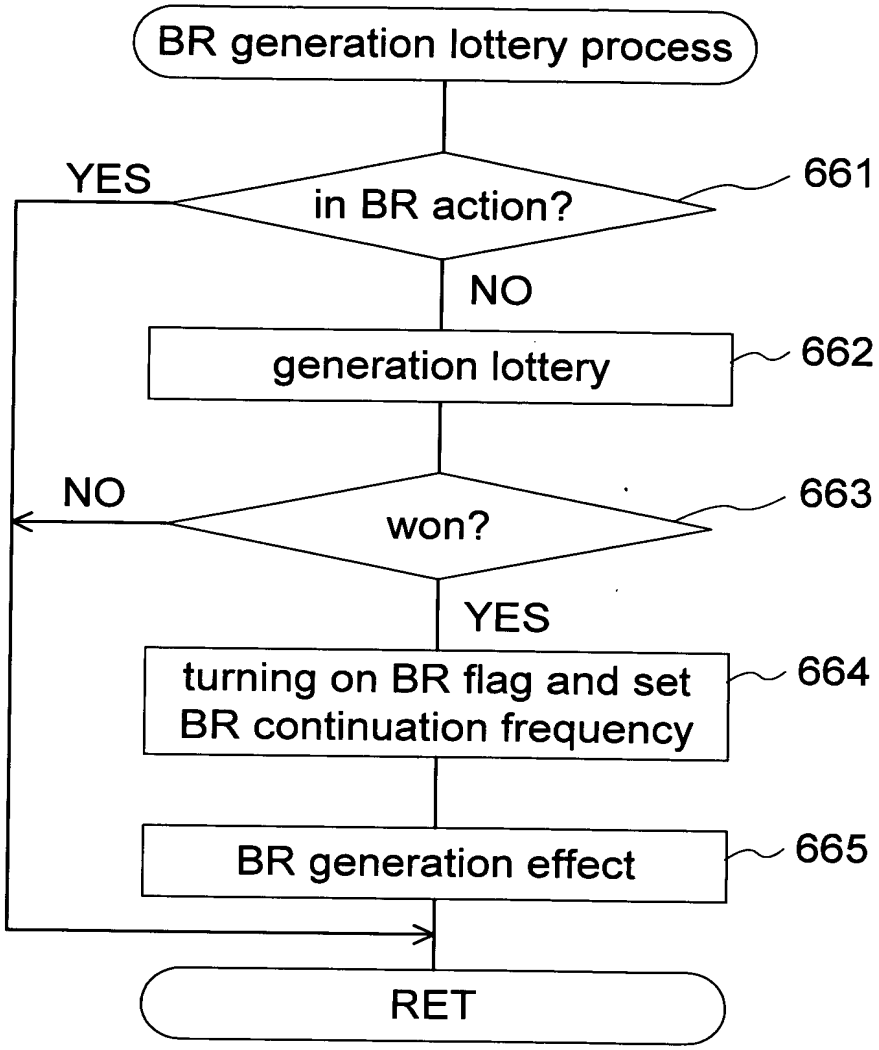

BR generation lottery process
YES
in BR action?
661
NO
generation lottery
662
NO
won?
663
YES
turning on BR flag and set
BR continuation frequency
664
BR generation effect
665
RET

Fig. 28

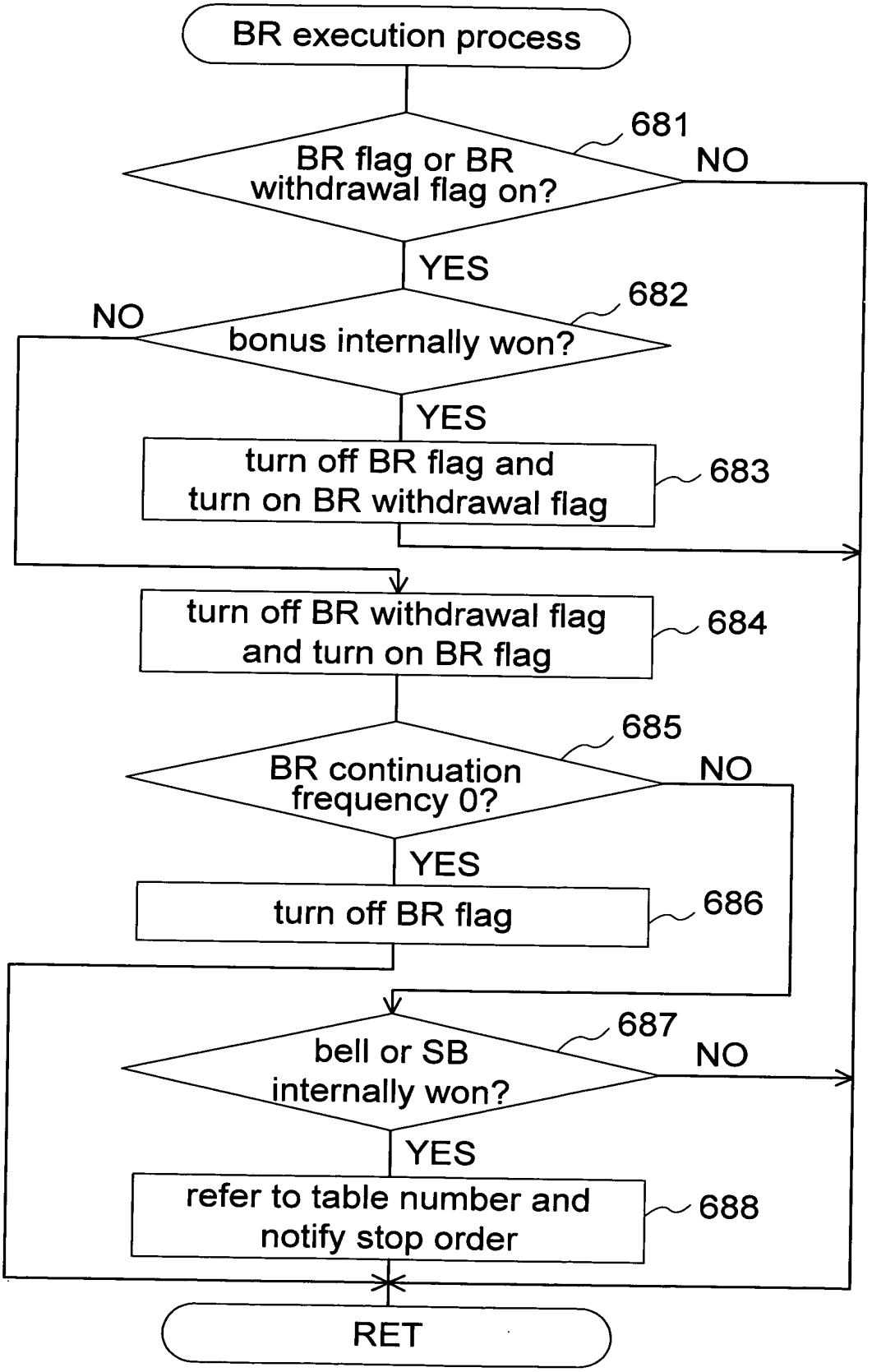

BR execution process
681
BR flag or BR withdrawal flag on?
NO
YES
682
NO
bonus internally won?
YES
turn off BR flag and turn on BR withdrawal flag
683
turn off BR withdrawal flag and turn on BR flag
684
685
BR continuation frequency 0?
NO
YES
turn off BR flag
686
687
bell or SB internally won?
NO
YES
refer to table number and notify stop order
688
RET

Fig.29

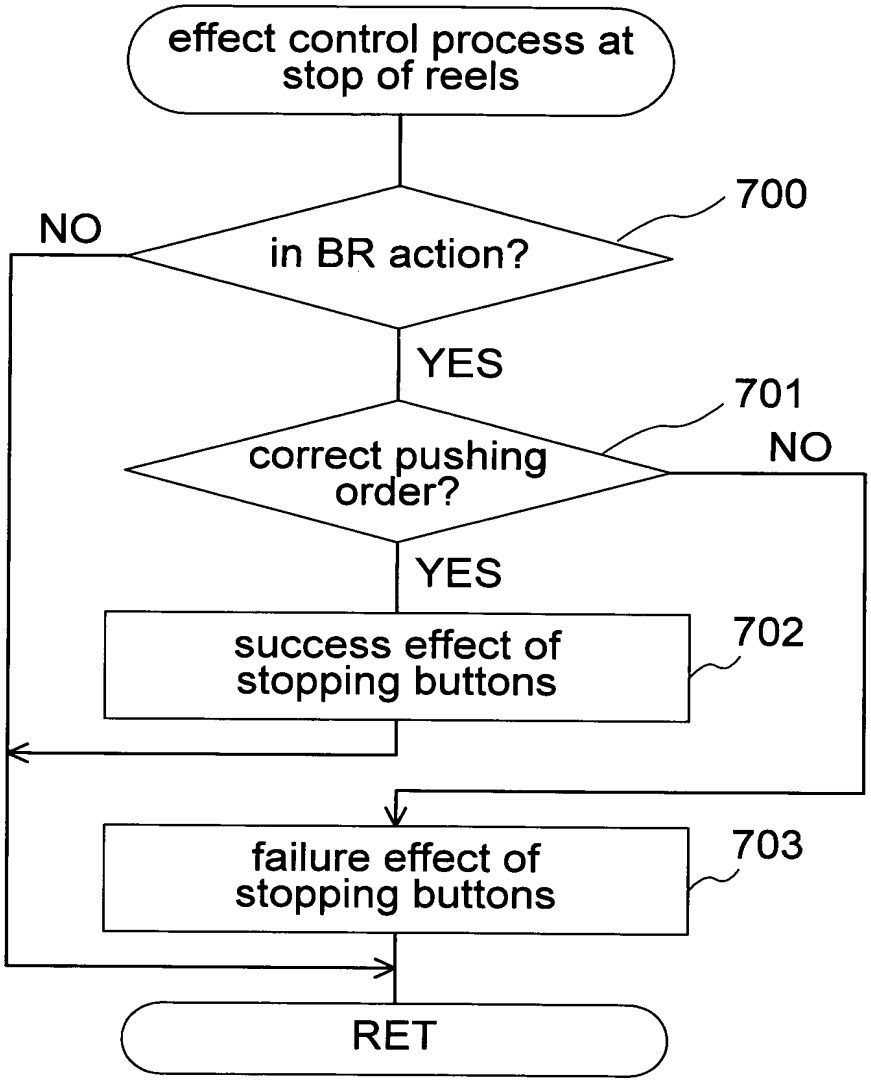

effect control process at stop of reels
700
in BR action?
NO
YES
701
correct pushing order?
NO
YES
success effect of stopping buttons
702
failure effect of stopping buttons
703
RET

Fig. 30

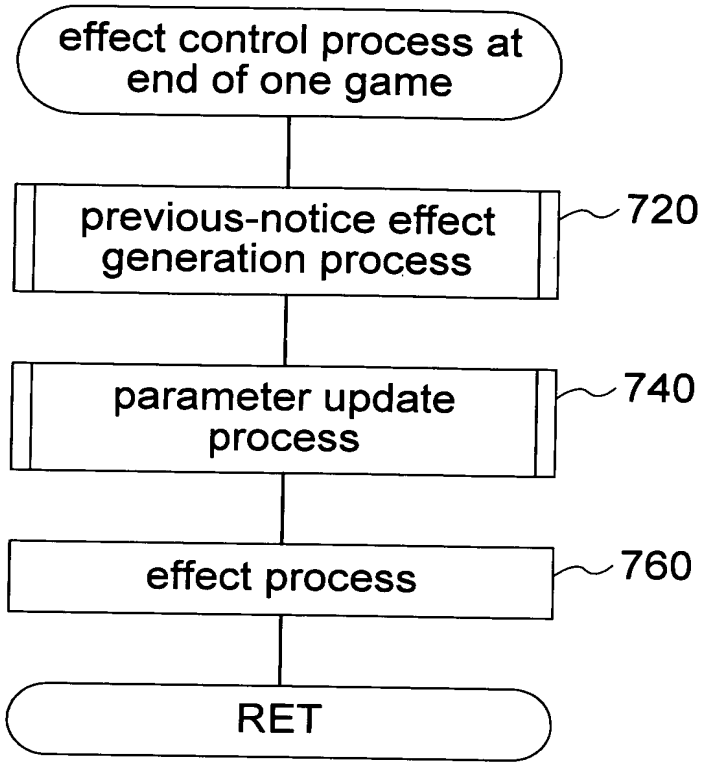

effect control process at end of one game
previous-notice effect generation process
720
parameter update process
740
effect process
760
RET

Fig. 31

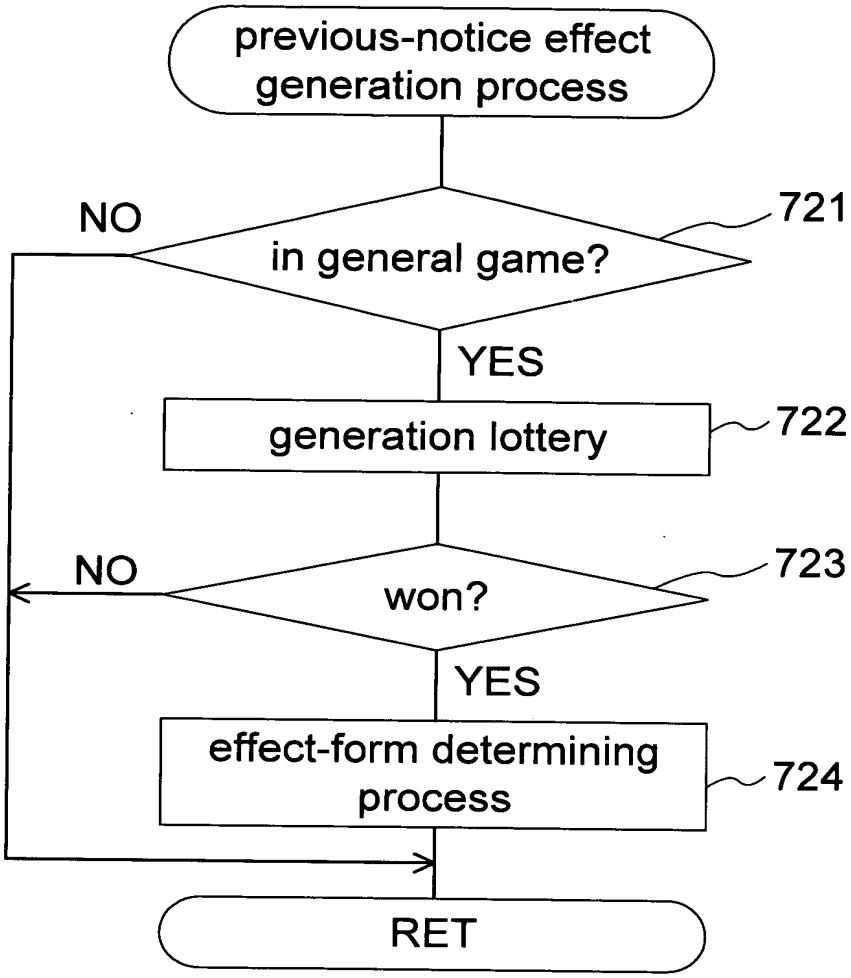
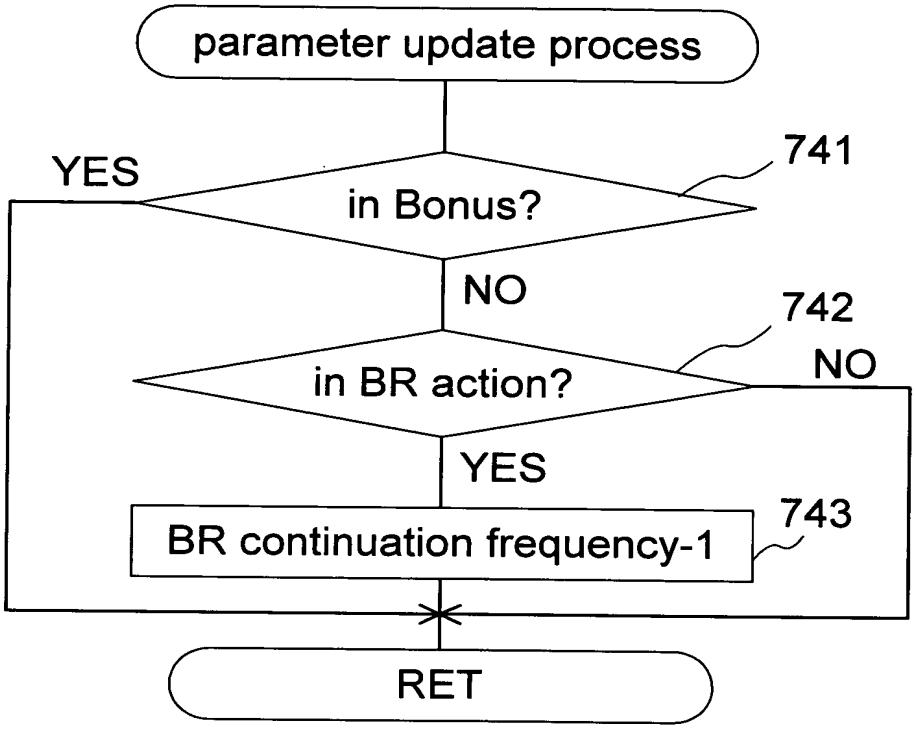

previous-notice effect generation process
in general game?
721
NO
YES
generation lottery
722
won?
723
NO
YES
effect-form determining process
724
RET

Fig. 32


parameter update process
741
YES
in Bonus?
NO
742
in BR action?
NO
YES
743
BR continuation frequency-1
RET